

WHAT IS CLAIMED IS:

1. A vibration control apparatus using a water tank located at top floor of a tall building, comprising:

5 a box shaped water tank having a pair of front and rear walls, a pair of left and right side walls, and a bottom wall;

a plurality of vertical wire meshes inserted vertically from upper edges of the front and rear walls and arranged in the middle of the water tank;

10 a plurality of horizontal protrusions formed at an overall inner wall surface of the front and rear walls and left and right side walls while being spaced apart from one another at equal distances, the horizontal protrusions serving to allow passing through a constant amount of fluid contained in the
15 water tank with a damping force; and

water tank covers installed at both sides of a top plane of the water tank, the water tank covers being made of reinforced plastic.

20 2. The apparatus as set forth in claim 1, wherein the vertical wire meshes have a mesh diameter in a range between 0.6mm and 1.0mm, and an aperture ratio in a range between 45% and 55%.

25 3. The apparatus as set forth in claim 1, wherein: the

respective horizontal protrusions have a ratio of a vertical width to a thickness of about 1 to 5; and

the respective horizontal protrusions have upper and lower edges, which are inclined by an angle of 60° about a horizontal axis thereof, respectively, in order to secure smooth flow of the fluid in a vertical direction.